

KARANDINA, Susanna Nikolayevna; RODE, A.A., doktor sel'khoz. nauk,  
otv. red.; NADEZHDINA, M.V., red. izd-va; VOLKOVA, V.V.,  
tekhn. red.

[Characteristics of the growth of the English oak  
(*Quercus robur* L.) in the Caspian Depression] Osobennosti  
rosta duba chereschatogo (*Quercus robur* L.) v Prikaspii-  
skoi nizmennosti. Moskva, Izd-vo AN SSSR, 1963. 89 p.

(MIRA 16:6)

(Caspian Depression--Oak)

KARANESHEV, G. (DR)

#240

1. "The Role of the Auxiliary Medical Services in the Struggle Against Plague and Typhus", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 12-16.
2. "Typhus and Dysentery", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 17-23.
3. "Carrying Injured and Sick People with the Means of Hand, Dr. G. KARANESHEV, (Moscow), 1953, pp 24-26.
4. "The Role of the Auxiliary Medical Services in the Struggle Against Plague and Typhus", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 27-29.
5. "The Role of the Auxiliary Medical Services in the Struggle Against Plague and Typhus", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 30-32.
6. "The Role of the Auxiliary Medical Services in the Struggle Against Plague and Typhus", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 33-35.
7. "The Role of the Auxiliary Medical Services in the Struggle Against Plague and Typhus", Dr. G. KARANESHEV and Dr. K. KARANESHEVA, Institute of Pathological Bacteriology, (Moscow), 1953, pp 36-38.

11

ZHUROVSKI, D., KARANESHEV, K.

Swelling pressure of coals in coking. Min delo 18 no. 12:  
33-35 D '63.

1. Nauchnoizsledovatel'ski institut za koksokhimiia i  
neftoprerabotvane.

KARANEVICH, V.

SHCHUKA, Penya, kamsamolka; KARANEVICH, Valya, kamsamolka.

Is that the right way to provide rest to collective farm members?  
Rab. 1 sial. 34 no.1:19 Ja '58. (MIRA 11:1)

1. Kalgas "1 Maya" Slutskaga rayona.  
(Slutsk District--Social group work)

KARANEVSKIY, O.N. [Karanevs'kiy, O.N.], kand.tekhn.nauk

Device for removing mulberry silkworm cocoons. Mekh.sil'hosp.  
10 no.2:29 F '59. (MIRA 12:6)  
(Sericulture)

KARANVILOV, Ilija, inz. [Karanfilov, Ilija]

The first consultative conference of the Society of  
Electromechanical Engineers and Technicians of Macedonia.  
Elektroprivreda 15 no.2/3:116 F-Mr '62.

1. Clan Redakcionog odbora za Makedoniju, "Elektroprivreda."

KARANFILOV, P.

Public help to firemen. Pczh. delo 6 no. 11:28 N '60.

(MIRA 13:12)

1. Predsedatel' Izmail'skogo rayispolkoma, Odesskaya oblast'.  
(Odessa Province--Fire extinction--Societies)

ARSIC, Bogoljub, sanitetski pukovnik, dr.; DORDEVIC, Dusan, sanitetski major, dr.; KARANFILOV, Sotir, sanitetski pukovnik, dr.; MILADINOVIC, Toma, sanitetski kapetan, dr.; SOKOLOVSKI, Bora, sanitetski kapetan I klase, dr.; ZISOVSKI, Angel, sanitetski potpukovnik, dr.; PAVLOVIC, Miodrag, tehnicki saradnik, sanitetski kapetan I klase.

Treatment and prevention of acute bacillary dysentery with a single dose of oxytetracycline. Vojnosanit. pregl. 21 no.4: 223-228 Ap '64.

1. Vojnomedicinska akademija u Beogradu; Epidemioloski institut HZ; Higijensko-epidemioloski odred u Skoplju; Armijska bolnica u Skoplju, Zarazno odeljenje.



KARANFILOV, T. S.

Cand Tech Sci

Dissertation: "Investigation of the Process of Injection During  
Silicatization of Loess Grounds in Structure Foundations."

15 Feb 49

All-Union Sci Res Inst of Water Supply, Saver Agr, Hydraulic Engineering Structures  
and Engineering Hydrogeology ("VODGEO")

SO Vecheryaya Moskva  
Sum 71

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KARANFILOV, T. S.

USSR/Engineering - Hydraulic Engineering Jan 51

"Determination of the Radius of Ground Strengthening in the Case of a Constant Coefficient of Filtration," T. S. Karanfilov, Cand Tech Sci

"Gidrotekh Stroi" No 1, pp 39-42

Deduces formulas for detg radius of strengthening of sand grounds by silicetization and other methods, when filtration coeff in the process of forcing soln into ground remains const, and soln motion in ground is laminar. Obtains formulas for 3 possible methods of forcing soln into

199742

USSR/Engineering - Hydraulic Engineering Jan 51  
(Contd)

Ground: through open end of pipe, through injecting pipe perforated partially, or perforated for length equal to thickness of layer to be strengthened.

199742

KARANFILOV, T. S.

Filters and Filtration

Calculating water filtration from a canal into the soil by the method of hydraulic analogy.

Gidr. stroi. 22 No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KARANFILOV, T.S.

Oblegchennye kamennye steny (Light-weight masonry walls). Moskva, Gos. izd. lit. po stroitel'stvu i arkhitekture, 1954. 280 p.

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

KARANFILOV, T.S.

PEREL'SHTEYN, N.L., kandidat tekhnicheskikh nauk; PITSKEL', L.N., kandidat tekhnicheskikh nauk; KARANFILOV, T.S., kandidat tekhnicheskikh nauk.

Prestressed reinforced concrete sectional girders. Nov.tekh.1  
pered.op. v stroi. 19 no.2:1-5 F '57. (MLRA 10:4)  
(Girders) (Prestressed concrete construction)

KARANFILOV, T.S.

Using hydraulic integrators in investigating unsteady water infiltration from basins into the soil. Nauch.dokl.vys.shkoly; stroi. no.1:251-261 '59. (MIRA 12:10)

1. Rekomendovana kafedroy gidrotekhnicheskikh sooruzheniy Moskovskogo inzhenerno-stroitel'nogo instituta im. V.V.Kuybysheva.  
(Soil percolation) (Water, Underground)

KARANFILOV, T.S.

Studying the unsteady seepage between reservoirs using  
slotlike trays. Nauch.dokl.vys.shkoly; stroi. no.2:267-272  
'59. (MIRA 13:4)

1. Rekomendovana kafedroy gidrotekhnicheskikh sooruzheniy  
Moskovskogo inzhenerno-stroitel'nogo instituta im. V.V.  
Kuybysheva.

(Soil percolation) (Water, Underground)

KARANFILOV, T.S., kand.tekhn.nauk

Precise seepage calculations using slotted plates. Gidr.  
stroj. 30 no.2:45-47 P '60. (MIRA 13:4)  
(Soil percolation)



KARANFILOV, T.S., kand.tekhn.nauk

Multistoried houses built of prefabricated room units. Bet.i  
zhel.-bet. no.4:181-184 Ap '60. (MIRA 13:8)  
(Precast concrete construction)  
(Apartment houses)

KARANFILOV, T.S., kand.tekhn.nauk

Study of horizontal unsteady percolation by a hydraulic analogy  
method. Gidr. stroi. 32 no.2:38-41 F '62. (MIRA 15:7)  
(Soil percolation)

BERIC, B.; ~~KARANFILSKI~~, B.

The influence of estradiol on the alimentary hyperglycemia curve.  
Srpski arh.celok.lek. 83 no.2:203-208 Feb '55.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u Skoplju.  
Upravnik: prof. dr Milenko Beric.

(ESTROGENS, eff.

estradiol on alimentary hyperglycemia (Ser))

(HYPERGLYCEMIA, exper.

eff. of estradiol on alimentary hyperglycemia (Ser))

KARANFIISKI, B., dr; TADZER, I.S., prof. dr.

Experiences with testing of thyroid function by means of radioiodine.  
Med. glasn. 14 no.2a:126-131 F '60.

1. Institut za patolosku fiziologiju Medicinskog fakulteta u Skoplju,  
Upravnik: prof. dr I.S. Tadzer.  
(THYROID GLAND physiol.)  
(IODINE radioactive)

KARANFILSKI, Borislav; DAVCEV, Penco; SERAFIMOV, Stevan

Radiochromium labeled erythrocyte tests in gastrointestinal hemorrhages. Srpski arh. celok. lek. 88 no.10:969-972 0 '60.

1. Patofiziološki institut Medicinskog fakulteta Univerziteta u Skopju. Direktor: prof. dr Isak Tacer. Interna klinika Medicinskog fakulteta Univerziteta u Skopju. Direktor: prof. dr Dimitar Arsov.

(HEMORRHAGE GASTROINTESTINAL diag) (ERYTHROCYTES)  
(CHROMIUM radioactive)

KARANFILSKI, B.

The role of the spleen in the destruction of labelled erythrocytes. Bul se Young 8 no.3/4:92 Je-Ag'63.

1. Institut za patologiju, Medicinski fakultet, Skopje.

YUGOSLAVIA

Dr Borislav KARANFILSKI and Prof Dr Penco DAVCEV, Department of Pathological Physiology and Internal Medicine Clinic of Medical Faculty (Institut za patofiziologiju i Interna klinika Medicinskog fakulteta), Skopje.

"Our Experiences in Absorption Studies with Labeled Fats."

Belgrade, Medicinski Glasnik, Vol 17, No 3-4, Mar-Apr 63; pp 139-140.

Abstract : Use of I-131 to determine intestinal absorption of fats in 18 patients and 16 controls; technical details. Method is considered a valuable diagnostic aid. Table, 9 Western references.

1/1

DOLGOVA-KORUBIK, Vera; KARANFILSKI, Borislav; TACER, Isak

Polycythemia in a coagulation defect following radiophosphorus therapy. Srpski arh. celok.lek. 91 no.7:735-739 J1-Ag'63.

1. Institut za patolosku fiziologiju Medicinskog fakulteta Univerziteta u Skoplju. Upravnik: prof. dr. Isak Tacer.

\*



KARANFIŠKI, B.T.; TADŽER, I. I.

Hemostasis following internal col<sup>125</sup>I gold irradiation in the dog. Acta med. Yugosl. 18 no.1:46-57 '64

I. Institut za patološku fiziologiju Medicinskog Fakulteta u Skoplju.

KARANIKOLOV CHR

Chr On a class of indeterminate equations

(Bulgarian)

Cf. Tchakaloff and the author, C. R. Acad. Sci. Paris  
210, 281-284 (1940); these Rev. 1, 20).

Mathematical Reviews,

Karanikoloff, Chr.

Karanikoloff, Chr. Sur une équation différentielle considérée par Kummer. C. R. Acad. Bulgare Sci. Math. Nat. 2, no. 1, 25-28 (1949).

The author finds power series solutions of the equation  $d^2y/dx^2 = x^m y$  and discusses their singularities at  $x=0$ .

P. Franklin (Cambridge Mass.)

Source: Mathematical Reviews, 1950 Vol 11 No. 2

KARANICOLOFF, C.

Karanicoff, Christo. Sur une équation différentielle d'ordre  $n$ . Acta Math. Acad. Sci. Hungar. 4, 237-242 (1953). (Russian summary)

The author considers the differential equation (\*)  $w^{(n)}(z) = f(z, w)w(z)$ , where  $\rho$  is a positive constant and  $f(z, w)$  is regular for  $|z| \leq R$ ,  $|w| \leq R^\rho$ . He shows that (\*) is solved by a series  $w(z) = \sum_{k=0}^{\infty} c_k(z)z^k$ , converging in a deleted neighborhood of  $z=0$ , where the functions  $c_k(z)$  can be determined by successively solving certain linear differential equations for which  $z=0$  is a regular point.

Z. Nehari (St. Louis, Mo.).

KARANIKOLOV, Khr.

USSR /Mathematics - Quadrature

Card 1/1

Author : Karanikolov, Khr.

Title : A formula of mechanical quadrature

Periodical : Usp. mat. nauk, 9, No 2(60), 157-161, 1954

Abstract : Constructs a method of mechanical quadrature with equidistant abscissae for which the distance between the neighboring points of the abscissa  $d$  (not equal to  $(b-a)/n$ ) would be chosen in such a way that this method becomes absolutely exact for polynomials in  $x$  of powers as large as possible.

Submitted : January 26, 1953

Karanikolov, K.

1219. Karanikolov, K., The phenomenological relations of  
Onsager, *Sov. Phys. Usp.* 1, 2, 264-267 Sept. 1968  
(Consultants' Bur. Translation)

USSR/Physics - Thermodynamics

FD-1842

**KARANIKOLOV, Khristo**

Card 1/1

Pub. 146-2/25

Author : Karanikolov, Khristo (Sofia, Bulgaria)

Title : ~~Phenomenological relations of Onsager~~  
Phenomenological relations of Onsager

Periodical : Zhur. eksp. i teor. fiz. 28, 283-286, March 1955

Abstract : The author discusses Kiril Popov's article (same issue, 257-282, and gives new demonstrations of Popov's results (see preceding abstract).

Institution:

Submitted : January 8, 1954

KARANIKOLOV, KH.

TECHNOLOGY

Vol. 3, no. 1/2, 1955/56 (published 1957).

Karanikolov, Kh. Concerning some indefinite equations.  
p. 119.

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1.  
Jan. 1959.



LOPSHITS, A.M., (Yaroslavl'); VIKSMAN, V.S. (Moskva); KARANIKOLOV, Khr.  
(Sofiya); BERKOLAYKO, S. (Belgorodskaya oblast'); ZOKOV, Ye.A.  
(Krasnodarskiy kray); GABOVICH, Ya. (Tartu); SKOLETS, Z.A.(Yaroslavl');  
RABINOVICH, V.L. (Petrovskoye TSelinnoye kraya)

Problems. Mat. v shkole no.4:86 JI-Ag '63. (MIRA 16:9)  
(Mathematics—Problems, exercises, etc.)

KARANIKOLOV, Khr.

A theorem of Minkowski and Chebotarev. Usp. mat. nauk 18 no.3:  
163-166 My-Je '63. (MIRA 16:10)

KARANIKOLOFF, Christo [Karanikolov, Khristo]

An Enestrom-Kakeya-type theorem. Mat lapok 14 no.1/2:133-136  
'63.

KARANICOLOFF, Chr. (Sofia)

A Diophantine equation considered by Goormaghtigh. Annales  
Pol math 14 no. 1:69-76 '63.

KARANJAC, B.

Safety in air transportation. Medium transp 8 no.10:732-733 0 '62.

KARANJAC, Ivan, ing. (Zagreb)

Vertical well drilling techniques. Nafta Jug 11 no.11:267-283  
N '60.

1. Naftaplin, Zagreb.

RABINOVICH, M.Ya.; CHERNOMAZ, A.Ye.; OSTROVSKIY, M.H., KARANKEVICH, I.F.

Device for applying an acrylin coating on leather and for  
subsequent drying. Obm. tekhn. opyt. [MLP] no.29:23-25 '57.  
(MIRA 13:1)

(Leather industry--Equipment and supplies)

KARANKEVICH, I. P.

RABINOVICH, N. Ya.; CHERNOMAZ, A. Ya.; OSTROVSKIY, M. M.; KARANKEVICH, I. P.  
Infrared rays for drying of leather. Obs. tech. exp. (MSP)  
no. 29125-26 '57. (MIRA 1311)  
(Infrared rays—Industry application) (Leather—Drying)



KARANOV, B.

KARANOV, B.; MINEVA, T.; TOSHKOV, Kh., stazhant-lekari.

Modifications in fraction III of blood coagulation (I.I.Danilin's phenomenon). Suvrem.med., Sofia 6 no.7:82-88 1955.

1. Pod rukovodstvo na I.Todorov ot Detskata klinika (direktor: prof. L.Rachev) i L.Atanasova ot Terapevtichnata klinika (direktor: prof. A.Pukhlev) pri Visshia meditsinski institut V.Chervenkov, Sofia.

(BLOOD COAGULATION,  
fraction III, in var. dis.)

KARANOV, B.; IORDANOVA, N.

Treatment of bronchial asthma in the resort Momin prokhoz. Suvren.  
med. Sofia 8 no.3:53-60 1957.

1. Iz Pochivniiia dom na TS na profesionalnite suiuzi v Momin prokhod  
(Gl. lekar: N. Iordanova).  
(ASTHMA, therapy,  
sanatorial (bul))

KARANOV, E.; VASIL'YEV, G.

Physiological activity of some thiourea derivatives and their  
chemical structure. Dokl. AN SSSR 156 no. 4:957-960 Je '64.  
(MIRA 17:6)

1. Institut biologii im. M.Popova Bolgarskey Akademii nauk.  
Predstavleno akademikom A.L.Kursanovym.

GAITANDZHIEV, St.; KARANOV, Em.

Chemical structure and physiological activity of certain  
regulators of growth. Priroda Bulg 12 no. 6:60-66 N-D '63.

KARANOV, Em.; GAITANDZHIEV, St.

Beta, beta, beta-trichloro--alpha-hydroxyethylamide of some chlorinated phenoxyacetic acids as growth regulators. I. Chemical structure and physiological activity. Izv. inst. biol. Popov (Sofia) 13:105-120 '63.

KARANOV, G.

New railroad equipment exhibited at the International Fair in Plovdiv. p. 38.  
TRANSPORTNO DELO, Vol. 7, No. 10, 1955, Sofiya, Bulgaria.

SO: East European Accessions List, Lib. of Cong., Vol. 5, No. 10, Oct. 1956.

KARANOV, Georgi, inzh.

A useful device for the Bulgarian railroad stations. Transp delo  
6 no.8:43-44 '54.

KARANOV, Georgi, inzh.

On the technical improvement and rationalization of locomotives.  
Transp delo 6 no.7:11-16 '54.

1. N-k sektor Ratsionalizatsiia i standarti pri zhp upravlenie  
Sofia.



KARANOV, G.

KARANOV, G. Improving the supplying of water for the locomotives. p. 41.  
Vol. 8, no. 6, 1956. TRANSPORTNO DELO. Sofia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

KARANOV, G.; BONCHEV, K.

Ultrasonic defect detector. p. 56. (Transportno Delo, Vol. 9, No. 2, 1957, Sofia, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BEREZIN, V.D.; BIRYUKOV, I.K.;  
 BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVY, G.A.; BULEV, M.Z.; BURAKOV,  
 N.A.; VERTSAYZER, B.A.; VOVK, G.M.; VORMAN, B.A.; VOSHCHININ, A.P.;  
 GALAKTIONOV, V.D., kand. tekhn. nauk; GENKIN, Ye.M.; GIL'DENBLAT,  
 Ya.D., kand. tekhn. nauk; GINZBURG, M.M.; GLEBOV, P.S.; GODES, E.G.;  
 GOHBACHEV, V.N.; GRZHIB, B.V.; GHEGULOV, L.P., kand. s.-kh. nauk;  
 GRODZINSKAYA, I.Ya.; DANILOV, A.G.; DMITRIYEV, I.G.; DMITRIYENKO,  
 Yu.D.; DOBROKHOTOV, D.D.; DUBININ, L.G.; DUNDUKOV, M.D.; ZHOLIK,  
 A.P.; ZENKEVICH, D.K.; ZIMAREV, Ye.V.; ZIMASKOV, S.V.; ZUBRIK, K.M.;  
KARANOV, I.F.; KNYAZEV, S.N.; KOLEGAYEV, N.M.; KOMAREVSKIY, V.T.;  
 KOSENKO, V.P.; KORENISTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;  
 KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGAR'KOV, N.I.; IGALOV, V.G.;  
 LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSEVICH, K.F.; MEL'NICHENKO,  
 K.I.; MENDEL'EVICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk;  
 MUSIYVA, R.N.; NATANSON, A.V.; NIKITIN, M.V.; OVES, I.S.;  
 OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PETROV, V.I.; PERYSHEIN,  
 G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; REMEZOV, N.P.;  
 ROZANOV, M.P., kand. biol. nauk; ROCHEGOV, A.G.; RUBINCHIK, A.M.;  
 RYBCHEVSKIY, V.S.; SADCHIKOV, A.V.; SEMENTSOV, V.A.; SIDENKO, P.M.;  
 SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY,  
 Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA,  
 Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;  
 TSISHCHEVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSEV, A.A.; CHUSOVITIN,  
 N.A.; SHESTOPAL, A.O.; SHEKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,  
 I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,  
 (Continued on next card)

ANDON'YEV, V.L.... (continued) Card 2.

Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV, Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUNER, P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent, red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.; GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F., retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I., kand. tekhn. nauk, retsenzent, red.; KARAULOV, B.F., retsenzent, red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN, V.V., retsenzent, red.; LUKIN, V.V., retsenzent, red.; LUSKIN, Z.D., retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV, D.M., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent, red.; OBERZKOV, S.S., retsenzent, red.; PETRASHIN', P.N., retsenzent, red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent, red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASHENKOV, N.G., retsenzent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V., prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.R., retsenzent, red.; FEDOROV, Ye.M., retsenzent, red.; SHEVYAKOV, M.N., retsenzent, red.; SEMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya. [deceased], akademik, glavnyy red.; RUSSO, G.A., kand. tekhn. nauk, red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.; ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.; LIKHACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.; MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN, N.V., red.; SOBOLEV, V.P., red.; FERINGER, B.P., red.; FREYGOFER, (Continued on next card)

ANDON'YEV, V.L.... (continued) Card 3.

Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,  
tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHEROVSKIY, N.V., tekhn.  
red.

[Volga-Don; technical account of the construction of the V.I. Lenin  
Volga-Don Navigation Canal, the TSimlyansk Hydroelectric Center,  
and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-  
stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSim-  
lianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v piati  
tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural  
descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk.  
Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of con-  
struction. Specialized operations in hydraulic engineering] Orga-  
nizatsiia stroitel'stva. Spetsial'nye gidrotekhnicheskie raboty.  
(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 4.

Glav. red. S.IA. Zhuk. Red. toma I.N. Kostrov. 1958. 319 p.

(MIRA 11:9)

1. Russia (1923- . U.S.S.R.) Ministerstvo elektrostantsii. Byuro  
tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-kor-  
respondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy  
chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin,  
Razin).

(Volga Don Canal--Hydraulic engineering)

KARANOV, N. A.

Cand Chem Sci - (diss) "Synthesis of complex esters of alkylglycol and alkylglycosal acids." Sverdlovsk, 1961. 11 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Ural Polytechnic Inst imeni S. M. Kirov); 150 copies; price not given; (KL, 5-61 sup, 176)

5(1)

SOV/32-25-4-11/71

AUTHORS: Karolev, A. N., Karanov, R. A.

TITLE: Determinations of Calcium Oxide and Silicon Dioxide in the Slag of Lead Melt (Opredeleniya okisi kal'tsiya i dvuokisi kremniya v shlake svintsovoy plavki)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 413-415 (USSR)

ABSTRACT: Examinations of the calcium-oxalate precipitation in the presence of iron and other elements in a solution which was obtained after breaking-up with a nitric-acid hydrofluoric-acid mixture were carried out. The oxalate precipitation took place methyl red being used as an indicator. The simultaneous precipitation of lead was prevented by the addition of komplexon III. As the obtained test results show (Table 1), 0.1 - 0.2 g of komplexon III are sufficient for the binding of lead. A course of analysis as well as results of calcium determinations in industrial samples (Table 2) are indicated. For determining  $\text{SiO}_2$  in slags of the lead melt the slightly modified photolorimetric method (Ref 3) was used. Better results are obtained with the use of silver crucibles (instead of iron or nickel crucibles) for melting the

Card 1/2



SOV/32-25-4-11/71

Determination of Calcium Oxide and Silicon Dioxide in the Slag of Lead Melt

sample with  $\text{Na}_2\text{O}_2$  as no impurities are caused by the crucible material. The thick-walled crucibles (3.5 - 4.5 mm) were made of "Dore" metal in the factory, and outlast 75 - 85 meltings. For the reduction of the silicon-molybdic acid, the weaker reduction agent - Mohr's salt - was used instead of  $\text{SnCl}_2$  (1.0 g/100 ml of solution), and was added to the solution after the leaching of the melt besides hydrochloric acid, nitric acid to avoid an increase in the results. The indicated course of analysis shows that the colorimetric measurement was made on an FEK-M photo-colorimeter. Some analytic results are given (Table 3). There are 3 tables and 3 Soviet references.

ASSOCIATION: Svintsovo-tsinkovyy zavod, g. Kyrdzhali, Bolgariya (Lead-zinc Works, Town of Kyrdzhali, Bulgaria)

Card 2/2

KAROLEV, A.; KARANOV, R.

Oxidometrical determination of iron after the reduction  
of ferroionites to ferroions with a lead reducer. Khim  
i industriia 34 no.1:16-18 '62.

5 (2)

AUTHORS:

Karanov, R. A., Karolev, A. N. (SAT)

S/032/60/026/01/013/052  
B010/B123

TITLE:

Photocolorimetric Determination of Bismuth in Refined Lead

PERIODICAL:

Zavodskaya laboratoriya, 1960, Vol 26, Nr 1, pp 48 - 50 (USSR)

ABSTRACT:

The bismuth determination in refined lead usually follows the photocolorimetric method suggested by Yu. Yu. Lur'ye and L. B. Ginzburg (Ref 1) which is based upon a reaction with thiourea. The influence of temperature, of the acidity of the solution and concentration of thiourea, of tartaric acid and ions of lead, silver and antimony on the formation of complex compounds  $\{Bi [CS(NH_2)]_3\}^{3+}$ , was investigated. If the lead concentration exceeds 1%, a precipitation occurs and reduced measuring values are obtained since bismuth is absorbed by this precipitate (Table 1). The optimum acidity is obtained at 0.5-1 vol% of nitric acid. An increase of temperature (Fig - diagram), an increase of tartaric acid concentration and a silver content exceeding 30 mg decreases the optical density of the solution with the coloured complex compound. Up to 5 mg antimony does not disturb the determination, with

Card 1/2

Photocolorimetric Determination of Bismuth in  
Refined Lead

S/032/60/026/01/013/052  
B010/B123

a higher content the disturbing influence is eliminated by adding 1-2 g of tartaric acid (Table 2). The optimum amount of nitric acid that should be used for dissolving the sample (Table 3) as well as a course of analysis corresponding to obtained test results are stated. The determination accuracy amounts to 0.0002 to 0.002% Bi. There are 1 figure, 3 tables, and 1 Soviet reference. ✓

ASSOCIATION: Svintsovo-tsinkovyy zavod, g. Kyrzhali, Bolgariya  
(Lead-Zinc Plant, City of Kyrzhali, Bulgaria)

Card 2/2

KAROLEV, A.N.; KARANOV, R.A.

Complexometric determination of calcium in a lead-calcium  
alloy. Zav. lab. 30 no.6:674 '64 (MIRA 17:8)

1. Plovdivskiy kombinat tsvetnykh metallov, Bolgariya.

KARANOV, S. K.

KARANOV, S. K. -- "Glaucoma." Sub 25 Nov 52, Central Inst for the  
Advanced Training of Physicians. (Dissertation for the Degree of  
Doctorate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

KARANOV, S.K., professor.

Early ophtalmological picture of the fundus oculi in gunshot wounds of the skull. Trudy AN Tadzh. SSR 40:71-74 '55. (MLRA 9:10)

1. Deystvitel'nyy chlen Akademii nauk Turkmenskey SSR. 2. Zaveduyushchiy kafedroy glaznykh bolezney "Turkmenskogo gosudarstvennogo meditsinskogo instituta imeni I.V. Stalina.

(SKULL--WOUNDS AND INJURIES) (EYE--DISEASES AND DEFECTS)

EXCERPTA MEDICA Sec.12 Vol.12/2 Ophthalmology Feb. 58  
KARANOV, S. K.

232. FIRST RESULTS OF SYNTHOMYCIN THERAPY IN TURKMENISTAN (Russian text). Karanov S. K. TRUD. TURKMEN TRAKH. INST. 1956, 4 (19-22)

The results of treatment with 10% and 1% emulsion of synthomycin in 1952 and the 1st half of 1953 are reported. A description of the cases in relation to age, sex, stage and severity of the trachoma process is given. Recovery times at various stages of the disease are indicated. Recurrences in cases, treated by 1% emulsion, were noted.

(S)



*Karanov, S.K.* EXCERPTA MEDICA Sec.17 Vol.4/4 Public Health, etc. Apr 58

1343. THE ORGANIZATION OF A MEDICAL SERVICE FOR RURAL PATIENTS  
WITH GLAUCOMA IN TURKMEN SSR (Russian text) - Karanov S.K. -  
TRUD. TURKMEN TRAKH. INST. 1956, 4 (51-54)

Statistical data concerning the extent of glaucoma in the Turkmen region, of resultant blindness and of its clinical forms are reported. The author considers that the tasks to be set are to complement the staff of medical and welfare establishments with ophthalmologists, and the necessary equipment, to encourage out-patient attendances and to spread the knowledge of the work being done. (S)

EXCERPTA MEDICA Sec.12 Vol.12/2 Ophthalmology Feb. 58

KARAKUMOV, S.K.

212. ACUTE EPIDEMIC CONJUNCTIVITIS IN THE TURKMEN SSR AND PROPHYLACTIC MEASURES ALONG THE KARAKUM CANAL (Russian text). Karanov S.K. TRUD.TURKMEN TRAKH.INST. 1956, 4 (39-74)

The increase in the morbidity of acute epidemic conjunctivitis during the summer-autumn period is ascribable to decreased resistance of the organism, activation of

the pathogen, and increased sensitivity of the conjunctivae as a result of irradiation by dust, wind and sunshine. The highest number of victims appears 3-6 weeks after the period of highest temperatures and least humidity of air. Flies play an important role in the spread of the disease. During June-September patients with acute epidemic conjunctivitis constitute 27-60% of all ophthalmic cases. Children up to 6 years are especially frequently affected. Corneal complications are often observed, in children sometimes leading to blindness. Acute epidemic conjunctivitis renders the conjunctiva more susceptible to trachomatous infection, or if it is superimposed on trachoma, it imparts to the latter a more malignant course. The clinical picture of the disease is described. One of the classical signs of the disease in the Turkmen SSR is the raised white triangle of conjunctiva with its base towards the cornea against a background of marked hyperaemia of the mucosa and a multitude of haemorrhagic spots under it. Quite often, the general state is disturbed: lassitude, headache, pyrexia. Nearly always there is rhinitis and running eyes. In particularly severe cases there is sickness, loss of appetite and sleeplessness. According to the dominant clinical manifestations the author distinguishes 3 forms of acute epidemic conjunctivitis: mild, moderately severe and severe, and according to preponderance of particular symptoms he classifies them as haemorrhagic, membranous, infiltrative, papillomatous and several other types. The author points out that preparations of mercury, silver and zinc sulphate do not guarantee a quick cure of the conjunctivitis. After a fortnight only 50% of patients have recovered, and the rest need 2-8 weeks. Much better results are obtained with the sulphonamides and penicillin therapy.

(S)

EXCERPTA MEDICA Sec.12 Vol.12/2 Ophthalmology Feb. 58

KARANOV, S.K.

291. EXPERIMENTAL APPLICATION OF SOME TISSUE PREPARATIONS IN THE TREATMENT OF GLAUCOMA (Russian text). Karanov S.K. TRUD. TURKMEN TRAKH. INST. 1956, 4 (119-122)

The results of administration of tissue therapy (aloe extract, cod-liver oil and a preparations of aqueous humour - 'tonisin') in glaucoma, at different stages and with different degrees of intra-ocular tension are reported.

(S)

KARANOV, S.K., prof.

In the ophthalmological Society. Zdrav. Turk. 4, no. 2:46 Mr-  
Ap '60. (MIRA 13:10)  
(TURKMENISTAN—OPHTHALMOLOGICAL SOCIETIES)

KARANOV, S.K., prof.

Research and therapeutic work in the rural locality. Zdrav.  
Turk. 4 no. 3:3-6 My-Je '60. (MIRA 13:12)

1. Iz Turkmenskogo nauchno-issledovatel'skogo trakhomatoznogo  
instituta (dir. - A.M. Saryyev, nauchnyy rukovoditel' - prof.  
S.K. Karanov).

(MARY PROVINCE—EYE—DISEASES AND DEFECTS)

KARANOV, S.K., prof.

Consultative and methological aid from the Department of Eye Diseases  
of Chardzhou Province. Zdrav. Turk. 5 no.3:41-43 My-Je '61.

(MIRA 14:10)

1. Iz kafedry glaznykh bolezney (zav. - prof. S.K.Karanov)  
Turkenskogo gosudarstvennogo instituta imeni Stalina.  
(CHARDZHOU PROVINCE—DISPENSARIES, OPHTHALMIC AND AURAL)

KARANOV, S.K., prof.

Trip of a delegation of Soviet doctors to Africa. Zdrav. Turk.  
6 no.3:46-47 My-Je '62. (MIRA 15:6)

1. Zaveduyushchiy kafedroy glaznykh bolezney Turkmenskogo  
meditsinskogo instituta, deystvitel'nyy chlen AN Turkmenskoy  
SSR.

(TOGO—MEDICINE)



KARANOV, S.K.

Interrelations between glaucoma and trachoma. Trudy Turk.nauch.-  
issl.trakh.inst. 6:79-85 '60. (MIRA 15:11)  
(GLAUCOMA) (CONJUNCTIVITIS, GRANULAR)

KARANOV, S.K.; ZATULINA, N.I.; KNAK, I.P.

Study of Prowazek's bodies in the population at a focus of trachoma  
in a rural area of Turkmenistan. Trudy Turk.nauch.-issl.trakh.inst.  
6:53-59 '60. (MIRA 15:11)

(TURKMENISTAN--CONJUNCTIVITIS, GRANULAR)  
(PROTOPLASM)

KARANOV, S.K., prof.

Nineteenth International Congress of Ophthalmologists. Zärav.  
Turk. 7 no.2:45-46 F '63. (MIRA 16:4)

1. Deystvitel'nyy chlen AN Turkmenskoy SSR.  
(OPHTHALMOLOGY—CONGRESSES)

DORMIDONTOVA, K.V.; KARANOV, S.K.; KATSNEL'SON, A.B.; KHAYUTIN, S.M.

The 19th International Congress of Ophthalmologists in  
Delhi. Vest. oft. 76 no.3:73-79 My-Je '63. (MIRA 17:2)

KARANOV, Sary Karanovich, prof.; ALMAZOVA, Ye.N., red.

[Nineteen days in Togo] 19 dnei v Togo. Ashkhabad,  
Turkmenskoe izd-vo, 1963. 77 p. (MIRA 17:5)

KARANOVA, Kh.

that with rise of reaction temp. the Cl content of the product declines; the amt. of structurally bound N rises to a max. of 13.6% at 125°, while ionically active N rises to a max. of 2.8% at 115-25°. There are thus indications that

COUNTRY : Bulgaria H-31  
 CATEGORY : Chemical Technology. Chemical Products and Their Applications--Caoutchouc, natural and synthetic.\*  
 ABS. JOUR. : RZKhim., No. 21 1959, No. 76904  
 AUTHOR : Kabaivanov, V., Mchaylov, M., and Kuranova, Kh.  
 INST. : Chemical Engineering Institute (Sofia)  
 TITLE : On the Amination of Chlorinated Rubber  
 ORIG. PUB. : Godishnik Khim.-Tekhnol Inst, 1956 (1957), No 1, 55-65  
 ABSTRACT : The authors have investigated the effect of temperature on the heterogenous amination of chlorinated rubber with an aqueous solution of  $NH_3$  under pressure at temperatures of 95-145°. Amino-chlorinated rubber of maximum M content and maximum ion exchange capacity is obtained at 125°. Using the quantity  $C_1$ , the degree of substitution of a given group or atom in the chain, the following concepts were derived: D, the availability of the amino groups for ion exchange;  $\phi_n$ , a

CARD: 1/3 \* Rubber.

309

COUNTRY : Bulgaria H-31  
 CATEGORY :  
 ABS. JOUR. : RZKhim., No. 21 1959, No. 76904  
 AUTHOR :  
 INST. :  
 TITLE :  
 ORIG. PUB. :  
 ABSTRACT : quantity expressing the screening effect of substituents on the availability of the amino groups for ion exchange; P, the screening effect; and  $P_s$  the specific screening effect for amino groups. The relation  $D = a/P_s$  is derived [a presumably is a constant] which permits the determination of the course of the (P,t) curve and to draw conclusions concerning the mechanism of the reaction. The ion exchange capacity of the amino-chlorinated rubber increases with a decrease of  $C_1$  (Cl) in the

CARD: 2/3

KARANOVIC, JOVAN I.

5198  
EFFECT OF HYPOTHYROIDISM ON RADIOSENSITIVITY OF  
RATS. Brđjan I. Hajduković and Jovan I. Karanović Publ.  
Inst. Nuclear Sci. "Boris Kidrič" (Belgrade) 1, 139-47  
(1987) Mar.

Recent results of investigations into the effect of x rays on the chilled hibernating animals have shown that the combined action of cysteine and chilling can give full protection (100%) even after the exposure to lethal doses. (auth)

auth

KIS/amy



SAVKOVIC, N.V.; RADIVOJEVIC, D.V.; HAJDUKOVIC, S.I.; RADOTIC, M.M.;  
POPOVIC, S.H.; KARANOVIC, J.; Technical assistance MALCIC, K.;  
BRADIC, M.

Histological analysis of testes in infant rats irradiated locally  
or all over the body with X rays. Bul Inst Nucl 12:145-147 0 '61.

1. The Institute of Nuclear Sciences "Boris Kidrich," Department  
of Radiobiology, Vinca.

KARANOVIC, J.; PRELEVIC, N.

Influence of erythropoietin on the proliferative activity  
of the megaloblasts in chicken embryos. Bul sc Young 7  
no.1/2:12 F-Ap '62.

1. Institut "B. Kidric," Vinca, Beograd.

\*

MARSICANIN, Bozidar; KARANOVIC, Pantelija

Gas-pressure stabilizer for the ion source. Nova prozv 13  
no.1:74-76 '62.

1st AND 2ND ORDERS

PROCESSED AND PREPARED BY

CP

7

The determination of small quantities of arsenic. G. KARANOVICH, *Trans. Inst. Pure Chem. Res.* (U.S.S.R.) No. 14, 93 (1935).—The app. of Martin and Pien (C. A. 24, 8253) permits the detn. of 0.001 to 0.005 mg. As in samples of 0.1 to 0.5 g. The method is sufficiently accurate to differentiate between 0.1 and 0.2  $\gamma$  of As. Lewis W. Dute

ASD SLA DETAILORICAL LITERATURE CLASSIFICATION

CA

Reduction of nitrate ion on a dropping-mercury cathode  
Polarographic determination of nitrate nitrogen in re-  
agents. S. I. Sinyakova and G. G. Karanovskh. *Trudy*  
*Komitet Anal. Khim. (Dokl. Khim. Nauk, Akad. Nauk*  
*S.S.S.R. 2, (5), 65-80 (1949).*—The reduction of  $\text{NO}_3^-$   
was studied in solns. of La, Ni, Ce, Ca, and Mg  
chlorides,  $\text{UO}_2^{++}$ , and some anions. In  $\text{LaCl}_3$  and  $\text{NiCl}_2$   
the reduction of 1 ml.  $\text{NO}_3^-$  required 7 F which is taken  
to indicate that nitride and hydroxylamine are formed.  
In  $\text{CeCl}_3$  solns. of pH 2.5, the product was  $\text{N}_2$ .  $\text{SO}_4^{--}$   
(0.02 mg./ml.) depressed the diffusion current when  
 $\text{NO}_3^-$  was reduced in solns. of rare earth chlorides. This  
effect of  $\text{SO}_4^{--}$  was stronger in solns. of  $\text{NiCl}_2$  than in  
 $\text{LaCl}_3$  and  $\text{CeCl}_3$ . K and Na had no effect on the diffusion  
current, Ca lowered it by approx. 10%, and Mg by approx.  
35%. In  $\text{CaCl}_2$  solns.  $\text{NO}_3^-$  was reduced in the absence of  
other cations, but the diffusion current was lower than  
in the presence of  $\text{La}^{+++}$ . In  $\text{MgCl}_2$  solns.  $\text{La}^{+++}$  did not  
affect the diffusion current. The half-wave potential of  
 $\text{NO}_3^-$  was  $-1.815$  v. In the presence of  $\text{UO}_2^{++}$  a well de-  
fined wave of  $\text{NO}_3^-$  was obtained having a half-wave po-  
tential of  $-1.0$  v. The diffusion current of  $\text{NO}_3^-$  in  
 $\text{UO}_2^{++}$  solns. increased somewhat as the concn. of  $\text{NO}_3^-$   
decreased. The reduction reaction was more complicated  
than the formation of  $\text{N}_2$ . In  $\text{UO}_2^{++}$  solns. K and Mg did  
not affect the diffusion current, Na increased it by 6-7%.  
It did not affect its magnitude but caused it to shift to  
positive value,  $\text{SO}_4^{--}$  affected the diffusion current only  
when present in concns. of 1.0-2.0 or more mg./ml.  
M. Hosh

KARANOVICH, G. G.

Karanovich, G. G. - "Fundamental principles of organizing departments for the mentally disordered in psychiatric hospitals," Trudy Tsent. in-ta psikhiatrii, Vol. IV, 1949, p. 437-49

SO: U-4934, 29 Oct 53, (Letopis 'Zhurnal 'nykh Statey, No. 16, 1949).

PA 149T71

KARAMOVICH, G. G.

USSR/Medicine - Psychiatry  
Public Health

Jan/Feb 49

"A New Stage in the Development of Soviet  
Psychiatric Organization," G. G. Karanovich, Hon  
Dr RSFSR, Cen Inst of Psychiatry, Min of Pub  
Health RSFSR, 6 pp

"Neuropatol i Psikhiat" Vol XVIII, No 1

Soviet psychiatric organization is divided into  
two stages: (1) restoration of prerevolutionary  
institutions, training of staffs and introducing  
psychiatric departments into existing hospitals,  
and (2) organization of this network and its  
149T71

USSR/Medicine - Psychiatry (Cont'd) Jan/Feb 49

Methods, initiated by decree of the Board.  
People's Commissariat for Health RSFSR, 28 Apr 32.  
Gives statistics on number of doctors, mortality  
rate, etc. Criticizes existing methods and  
states requirements. Compares US hospitals un-  
favorably. Dir, Cen Inst of Psychiatry: P. B.  
Pozvansky.

149T71

KARANOVICH, G. G.

PA 170T74

USSR/Medicine - Neuropsychiatry  
Hospitals, psychiatric  
Jan 50

"Actual Problems of Soviet Psychiatric Organi-  
zations," G. G. Karanovich, Honored Dr RSFSR,  
Cen Inst of Psychiatry, Min of Pub Health  
RSFSR

"Nevropatol i Psikhiat" No 1, pp 55-61

Discusses measures necessary for correcting  
discrepancies in neuropsychiatric aid avail-  
able to the public as noted in Order No 446  
of the Min of Pub Health USSR. Tabulates  
types of psychic diseases and proportions

170T74

USSR/Medicine - Neuropsychiatry (Contd) Jan 50  
to total population. Discusses lack of suffi-  
cient hospital beds available, and progress  
made in rebuilding facilities destroyed during  
the war. Includes 4 small tables. Dir of  
Inst, P. B. Fosvyanskiy. Submitted 12 Nov 49.

170T74



KARANOVICH, G. G.

16675

USSR/Chemistry - Analysis, Aluminum  
Reagents, New

Jul 50

"Colorimetric Determination of Aluminum With New  
Reagent' Stilbazo,'" V. I. Kuznetsov, G. G. Karano-  
vich, D. A. Dvorkina, Sci Res Inst of Chem Reagents

"Zavod Lab" Vol XVI, No 7, pp 787-792

Describes new reagent "stilbazo" and its application.  
New method permits colorimetric determination of  
0.1-5 gamma % of aluminum in 5-ml volume and deter-  
mination of aluminum by colorimetric titration.  
After reduction with ascorbic acid, determination  
is not hampered by presence of iron in amounts up

16675

USSR/Chemistry - Analysis, Aluminum (Contd) Jul 50

to 0.1 mg in 5-ml volume. In absence of iron, in-  
fluence of titanium up to 0.05 mg in 5 ml may be  
eliminated by adding some hydrogen peroxide. Pres-  
ence of bivalent and alkali metals does not inter-  
fere with determination of aluminum.

16675

1448 Colorimetric determination of beryllium by  
means of the new reagent beryllion II

1. The method is based on the reaction of beryllium with a reagent beryllion II.

*Karavich, I. I.*  
Preliminary photomicrographs at 800 $\times$  magnification  
100 $\times$  100 $\mu$  can be seen in the figure  
The micrograph shows a large number of small  
particles, which are distributed throughout the  
field of view.

KARANDVICH, G. G.

2104. Naphthazarin<sup>7</sup>—a reagent for the colorimetric determination of beryllium. G. G. Karandvich. *Trudy Vses. Nauch. Inst. Khim. Reaktivov*, 1956, (31), 43-47; *Ref. Zhur., Khim.*, 1956, Abstr. No. 64,747;—Naphthazarin (3,8-dihydroxy-1,4-naphthoquinone) (I) shows a colour transition from red through violet to blue over the pH range 0-1 to 8-0. It gives a colour reaction with Be. In an acetate buffer soln. at pH 5-6, 0.5 µg of Be in 5 ml of soln. can be determined by means of an aq. soln. of I; the maximum colour intensity is attained after 10 to 15 min. and is stable for 25 to 30 min. The complex of I with Be in acetone is stable for 18 hr. No interference is caused by Cd, Pb, Mn<sup>2+</sup>, As<sup>3+</sup>, Mo<sup>6+</sup>, Ca, Mg, Ba, W<sup>6+</sup>, Hg<sup>2+</sup> and Na at ratios between 50:1 and 5000:1. Interference of 5 µg of Fe<sup>3+</sup> is masked by tartaric acid (for 50 µg of Be, 0.2 ml of 25% tartaric acid soln. and a 25% soln. of Na acetate of pH 5-6 are used). Cobalt, Ni and Zn are masked similarly. Cu<sup>2+</sup> by means of SCN<sup>-</sup> followed by Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, and Al by means of tartrate or citrate. To determine Be in alkali metal salts, 1 to 2 ml of soln. (0.1 g of the salt) is diluted to 3 ml with the acetate buffer soln. and 1 ml of acetone together with 1 ml of a 0.01% soln. of I in acetone are added, and after 5 min. the extinction at 589 mµ is measured or the colour is compared with a scale of standards.

G. S. SMITH

no. PM

KARANOVICH, G.G.

3577. Murexide as a reagent for the colorimetric determination of calcium. G. G. Karanovich

*Trudy Vses. Nauch. Inst. Khim. Reaktiv. 1956*

21. Zh. M. Kh. Zh. Khim. 1956 Abstr. N. 15428. The reaction of calcium with murexide at pH 12 causes a change from pink colour to a colourless. The sensitivity at pH 12 corresponds to 20 µg of Ca in 5 ml, and at pH 12 to 13 to 1 µg of Ca in 5 ml. The max. colour intensity is reached after 1 min. The stability of the colour depends on the quantity of alkali added; max. stability is attained with 0.25 ml of N NaOH in 5 ml. In the presence of 1 ml of N NaOH in 5 ml of soln. containing 5 µg of Ca, up to 400 µg of Mg<sup>2+</sup> is allowable. It is established that 1.5 µg of Fe<sup>3+</sup>, 1 to 3 µg of Cu<sup>2+</sup>, Zn<sup>2+</sup>, Co<sup>2+</sup>, Ni<sup>2+</sup>, Cr<sup>3+</sup> and Mn<sup>2+</sup>, and 25 µg of Hg<sup>2+</sup> in 5 ml soln. using N NaOH, up to 50 µg of Fe<sup>3+</sup> may be screened, but Mg<sup>2+</sup> interferes in this process. With a Ca to Mg ratio of 1:300, Fe<sup>3+</sup> and heavy metals may be complexed with diethyl-dithiocarbamate, and the coloured compounds extracted with heptyl alcohol. Dilute the aliquot to 50 or 100 ml and in a 2 or 5 ml aliquot determine Ca with murexide at pH 12 to 13. Practically no interference is caused by the presence of Al, Pb, Ba, As, P, and Na in the respective ratios of Ca M of 1:50, 1:40, 1:25, 1:12.5, 1:250 and 1:1000. The method may be used for the determination of the calcium impurity in alkali-metal salts, but the determination of Ca in ammonium salts is possible only after removal of NH<sub>4</sub>.

C. D. KOPKIN

*RM for*

KARANOVICH, G.G.

Indole as a reagent for nitrites

Indole and  $\text{NO}_2^-$  gives the red

KARANOVICH, G.G.

Karavovich, G. G.

- Distr: 4E4j

7  
Colorimetric determination of beryllium with the aid of a  
new reagent—Beryllon II. G. G. Karavovich. J. Anal.  
Chem. U.S.S.R. 11, 417-21 (1956) (English translation).—  
See C.A. 51, 13840i.

2  
1  
B. M. R. 1/1  
CM



SOV/75-13-4-11/29

AUTHORS: Karanovich, G. G., Ionova, L. A., Podol'skaya, B. L.

TITLE: The Photometric Determination of Gallium by Means of Gallion  
(Fotometricheskoye opredeleniye galliya pri pomoshchi galliona)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 439-444 (USSR)

ABSTRACT: Several organic compounds are used for the photometric determination of gallium. These compounds react with gallium in forming deeply colored compounds (Refs 1-4). "Gallion", a reaction product from H-acid and diazotized 2-amino-4-nitro-6-chloro-phenol, is an interesting reagent to gallium (Ref 6). It is water-soluble; its 0,01% aqueous solution has a dark-red and the alkaline solution a blue-violet color. The reagent is easily soluble in alcohol and acetone, whereas it is difficult to solve in chloroform and ethylene-chloride. The solutions of gallion form colored compounds with several elements. A compound of blue color is formed with gallium. Gallion changes its color between  $p_H$  3,8 and 5,8 from red to blue-violet. Between  $p_H$  5,8 and 13 the blue-violet color does not change.

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With a further increase of the  $p_H$ -value the color changes to pink and attains the same shade at  $p_H$  about 14 as at  $p_H$  4. The optimum  $p_H$ -value for the determination of gallium is at  $p_H$  2,4 - 3,4. The maximum of light-absorption is at 600  $m\mu$ . A biphthalate buffer solution is useful for standardization, though it depends in a high degree on temperature. The crystals separate if temperature drops to  $+16^\circ$ . At optimum conditions ( $p_H$  about 3,2) the susceptibility of the determination amounts to 0,2  $\mu$  gallium in 5 ml solution. If the solution is heated, the final color is reached after 1 1/2 to 2 minutes, but at room temperature only after 10 to 15 minutes. Determination can be carried out by means of colorimetric microtitration. The maximal tolerable quantities of foreign ions which do not yield colored compounds with gallion (Ge, Pr, La, Mn, Co, Zn, Li, In, Rh, Tl, Re, Pb, Mg, Ca, Be, Al) were found and are mentioned. Aluminum and indium form colored compounds with gallion at  $p_H$  about 3,2. Gallium, however, can be determined in stronger acid compounds if there is a 50-fold excess of

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these two elements. The influence of iron, which is disturbing to a high degree, can be removed by a hydrochloric acid solution of hydroxylamine. Copper likewise exercises a disturbing influence and has to be reduced by means of a solution of sodium sulfate before its determination. After adding the hydroxylamine solution, the  $p_H$ -value of the solution has to be brought to 2,4 - 3,2 by sodium acetate. Prior to its determination in aluminosilicates, aluminum alloy, zinc blende, and other materials containing only traces of gallium, the latter has to be separated. This is usually done by extraction by means of organic solvents from hydrochloric acid solution (Refs 3, 5, 7). The extraction with isoamylalcohol and ethyl acetate from 6n hydrochloric acid solution proved to be the most useful. The conditions for the separation and the determination of gallium in various objects are mentioned in detail. There are 4 figures, 7 tables, and 7 references, 2 of which are Soviet.

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1. Gallium--Determination 2. Gallion--Properties 3. Reagents  
--Synthesis 4. Photometry

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